A PHASE I SURVEY AND EVALUATION OF PART OF THE SOUTHEAST DRAINAGE OF THE WELDON SPRING REMEDIAL ACTION PROJECT AREA ST. CHARLES COUNTY, MISSOURI

UNITED STATES DEPARTMENT OF ENERGY PROJECT

PREPARED FOR

UNITED STATES DEPARTMENT OF ENERGY

AND

ARGONNE NATIONAL LABORATORY
ARGONNE, ILLINOIS

PREPARED BY

TRIAD RESEARCH SERVICES
COLUMBIA, MISSOURI

GARY REX WALTERS, PH.D.
PRINCIPAL INVESTIGATOR AND REPORT AUTHOR

20 JULY 1990

PRESENT INVESTIGATION

At the request of personnel at the Argonne National Laboratory, Argonne, Illinois, and in compliance with current cultural resource and environmental regulations and policies (Weston and Weichman 1987), the present Triad Research Services (TRS) study was conducted for the United States Department of Energy (DOE) in order to provide an inventory and assess the National Register of Historic Places (NRHP) significance of cultural resources (National Park Service 1982) affected by current stream actions within the Southeast Drainage of the Weldon Spring Remedial Action Project Area in St. Charles County, Missouri. Information about the location and type of cultural resources within this area serve as evaluatory data and facilitate subsequent planning stages of project actions there. The principal, unnamed, intermittent stream in the Southeast Drainage is located in the East Missouri Study Unit (Missouri River Drainage Basin: Missouri 1 Watershed) in parts of Sections 5 and 6, T45N, R3E and in part of a Land Grant projected to be in part of Section 8, T45N, R3E, St. Charles County, Missouri (Figure 1).

A review of the existing data files for St. Charles County at ASM and MDNR-HPP by Gary Rex Walters on 3 July 1990 found that the Southeast Drainage of the Weldon Spring Remedial Action Project has never been professionally surveyed for cultural resources and that no cultural resources have been previously reported there. The field investigation portion of this study was completed by Gary Rex Walters (TRS) and John Hoffecker and Lynn Malinowski (Argonne National Laboratory), who conducted a systematic, on-location survey of the bed and cut-banks of the principal intermittent stream of the Southeast Drainage on 11 July 1990. Final evaluation of the collected data was done by Gary Rex Walters.

The principal channel of the unnamed, intermittent stream which traverses the Southeast Drainage of the Weldon Spring Remedial Action Project Area is approximately 3 m (ca 10 ft) wide and 2 km (ca 1.3 mi) long and ecompasses about .6 ha (1.3 ac) of land. It is located in parts of Sections 5 and 6, T45N, R3E, and part of a Land Grant projected to be in part of Section 8, T45N, R3E, in St. Charles County, Missouri (Figure 1). Its head-waters are immediately northwest of Highway 94; it flows in a generally south-southeast direction and empties into the Missouri River. The bed and cut-banks of this stream are situtated between approximatoly 450 and 600 ft/msl. Data from the

early nineteenth century suggest this area was in the native forest ecotone at that time (Schroeder 1981). The soil adjacent to this stream is principally classified as Goss cherty silt loam; that near the streams confluence with the Missouri River is classified as Hodge loamy fine sand (Tummons 1982).

When investigated, the stream bed and exposed cut-banks were mostly free of debris and surface visibility there was generally excellent (over 75%). Given the excellent surface visibility there the field investigation of these parts of the principal stream of the Southeast Drainage consisted of a systematic pedestrian survey utilizing direct surface observation techniques. The stream channel was traversed by a single transect; the surface of the stream bed and exposed cut-banks was visually scanned for evidence of cultural material. This undertaking recovered a single, identifiable prehistoric lithic artifact from the stream bed: a Late Archaic, Etley/Stone Square Stemmed-like, point/knife; extensive battering on its edges suggest long-term water transport. It seems quite likely the point/knife originated from a nearby upland site and, thus, it lacks primary depositional integrity. No buried cultural deposits were noted in the cut-banks of the stream. Therefore, the field investigation produced no evidence of significant cultural remains in the bed or cut-banks of the principal stream of the Southeast Drainage.

The above-described investigation found no evidence of significant cultural remains in the area directly affected by the principal, unnamed, intermittent stream in the Southeast Drainage of the Weldon Spring Remedial Action Project Area. Because of their absence, no known, significant cultural resources will be adversely impacted by project actions there. Thus, it is recommended, first, that project actions utilizing the current, principal stream channel of the Southeast Drainage of the Weldon Spring Remedial Action Project Area in St. Charles County, Missouri, be allowed to proceed as scheduled.

However, in the event project actions affect parts of the Southeast Drainage that are outside of the above-described principal stream channel, it is recommended, second, that these affected areas be surveyed and evaluated per MDNR-HPP guidelines, in order to identify, evaluate and circumvent the possible destruction of significant cultural resources that might occur there.

As in all studies such as this, no surface or near surface surveying/testing techniques can locate deeply buried cultural remains. Should such remains be discovered by project actions in the Southeast Drainage of the Weldon

Spring Remedial Action Project Area, it is recommended, third, that all project actions within 50 feet of these remains be stopped immediately and MDNR-HPP personnel and the author be notified so that these cultural remains can be evaluated for NRHP significance at that time.

It is recommended, fourth and final, that no project actions be initiated in the Southeast Drainage of the Weldon Spring Remedial Action Project Area until the above recommendations (first and second) have been responded to by MDNR-HPP personnel.

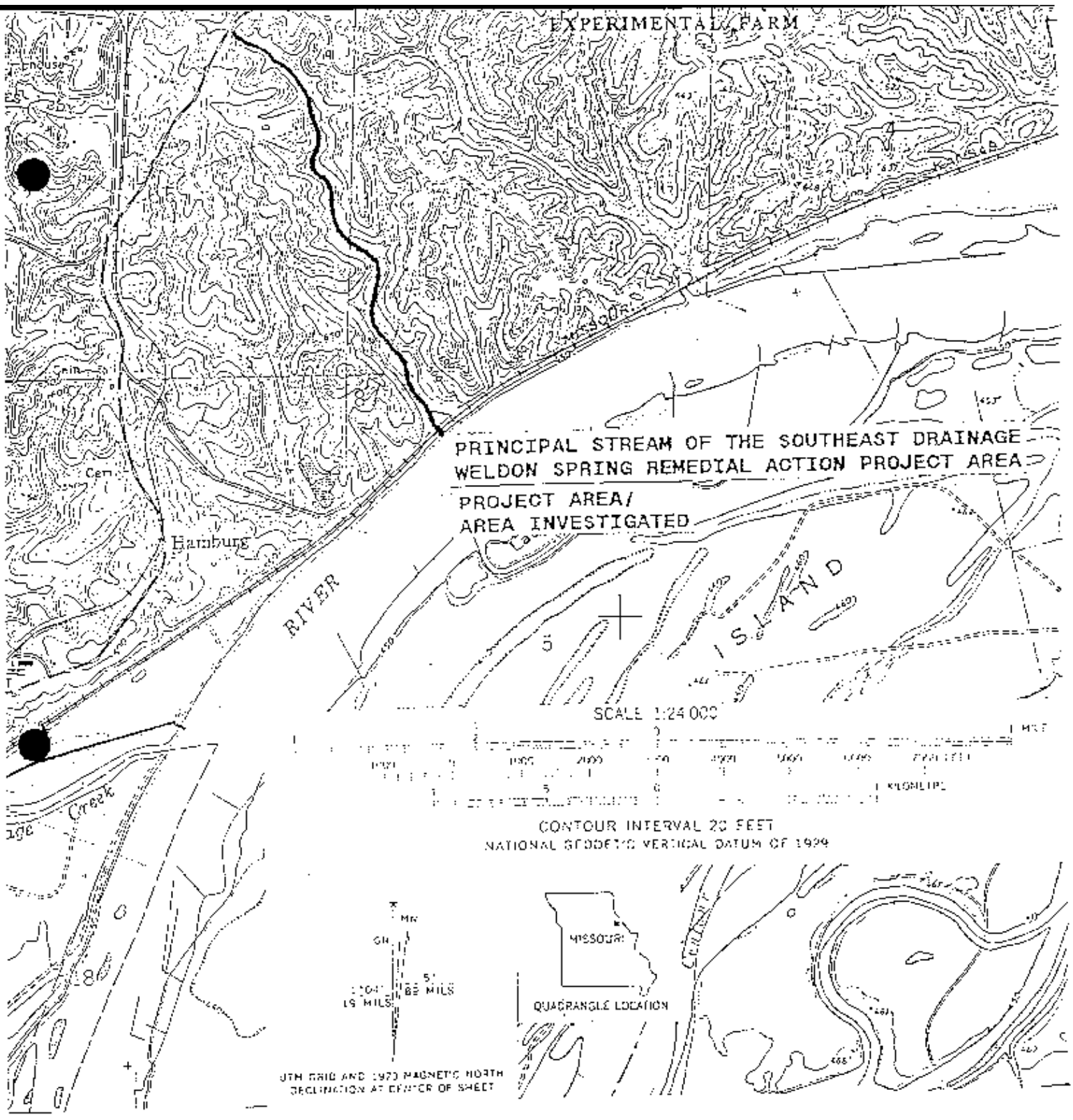

Figure 1. Locations of natural/cultural features and the principal stream of the Southeast Drainage in parts of Sections 5 and 6, and part of a Land Grant projected to be in part of Section 8, T45N, R3E, St. Charles County, Missouri: USGS 7.5' Weldon Spring quadrangle map.

CULTURAL RESOURCE SURVEY PROJECT SUMMARY SHEET

Missouri Department of Natural Resources
Historic Preservation Program

Report Title: A PHASE I SURVEY AND EVALUATION OF PART)F THE SOUTHEAST DRAINAGE OF THE WELDON SPRING REMEDIAL ACTION PROJECT AREA, ST. CHARLES COUNTY, MISSOURI

Counties: ST. CHARLES COUNTY Author(s): GARY REX WALTERS - TRS

Institutional Affiliation of Author(s): TRIAD RESEARCH, 2611 SPRUCE DRIVE, COLUMBIA, MO 65202

Federal Agency Involved/Client: DEPARTMENT OF ENERGY

Date of Report: 20 JULY 1990 Date of Field Invest.: 11 JULY 1990

Legal Description of Survey Area/Unit: S5, S6 AND S8 (projected) T45N, R3E

Total Acres Surveyed: CA. 1.3 ACRES

Historic Preservation Program Drainage: MISSOURI: MISSOURI 1

Elevation of Survey Area/Unit: Max. 600 msl Min. 450 msl Avg. 525 msl

Terrain: STREAM BED AND CUT-BANKS

Vegetation: VIRTUALLY NONE

Visibility (as % of survey area/unit): OVER 75%

Type: EXCELLENT

Nature of Soil (as % of survey area/unit): Aeolian ___% Colluvial ___% Alluvial 50 % Other 50 %

Raw Lithic Material Available: Type NONE NOTED Source NA

Legal Location: NA

Nearest Permanent Water Source: Spring___ Stream X River___ Lake___ Other___

Distance ADJACENT Name UNNAMED (SOUTHEAST DRAINAGE)

Closest Tributary: Distance SAME Name SAME Order 2

Number of Sites in Survey Area/Unit:

Prev. Recorded		Rec. by Pres. Invest.	
0	Prehistoric	0	Prehistoric
0	Historic Archaeo.	0	Historic Archaeo.
0	Historic	0	Historic
0	Architectural	0	Architectural
0	None	0	None

Type of Investigations (Mark all applicable):

- X Literature Search
- ___ Reconnaissance Survey
- X Intensive Survey - All resources
- ___ Intensive Survey - Archaeological only
- ___ Intensive Survey - Architec.-Historic only
- ___ Testing (Phase II)
- ___ Excavation (mitigation)
- ___ Research only
- ___ Other Fieldwork
- ___ Other

List all sites located within survey area/unit or discussed in report (attach continuation sheet if necessary).

NO SITES FOUND

Types of Site(s) NO SITES FOUND

Range of Cultural Affiliation(s) of Site(s) NO SITES FOUND

Direct Impact(s) to Site(s): ___ Total Destruction ___ Disruption
NO SITES FOUND ___ Partial Destruction X No Impact

Nature of Direct Impact(s) NO SITES FOUND

Nature of Indirect/Long-Range Impact to Site(s): NO SITES FOUND

Significance (Mark all applicable): NO SITES FOUND

___ High (National or regional research applicable)

___ Moderate (Local or state research applicable)

___ Low

1. Disturbed
2. Lacks context
3. Redundant data
4. Future utility uncertain

___ Insufficient Information

Future Work Recommendations (Mark all applicable): NO SITES FOUND

X No further work needed

___ Preserve/avoid

___ Test

___ Excavate

___ Monitor construction
(must justify by high potential of buried sites)

___ Nominate to Register

___ Restrict access

___ Other _____

Comments: Because of their absence in the principal , unnamed, intermittent stream in the Southeast Drainage of the Weldon Spring Remedial Actio n Project Area, no known, significant cultural resources will be adversely impacted by project actions there. Thus, it is recommended that project actions utilizing the current, principal stream channel of the Southeast Drainage be allowed to proceed as scheduled, provided the recommendations of the attached report are adhered to.

A U.S.G.S. 7.5 min. topographic map indicating all areas actually surveyed and locations of all sites must be attached.

Return to Michael Weichman, Chief, Review & Compliance, Historic Preservation Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102.